



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,201	07/23/2003	Shi-Feng Shao	USP2181C-DRSH	2701
30265	7590	12/16/2005	EXAMINER	
RAYMOND Y. CHAN 108 N. YNEZ AVE., SUITE 128 MONTEREY PARK, CA 91754			WRIGHT, INGRID D	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/627,201	SHAO, SHI-FENG	
	Examiner	Art Unit	
	Ingrid Wright	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of a certified copy of the application, China 022656682, dated 07/23/02, which was referred to in a specification. If this copy is being filed to obtain the benefits of the foreign filing date under 35 U.S.C. 119(a)-(d), applicant should also file a claim for such priority as required by 35 U.S.C. 119(b). If the application being examined is an original application filed under 35 U.S.C. 111(a) (other than a design application) on or after November 29, 2000, the claim for priority must be presented during the pendency of the application, and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior foreign application. See 37 CFR 1.55(a)(1)(i). If the application being examined has entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the claim for priority must be made during the pendency of the application and within the time limit set forth in the PCT and Regulations of the PCT. See 37 CFR 1.55(a)(1)(ii). Any claim for priority under 35 U.S.C. 119(a)-(d) or (f) or 365(a) or (b) not presented within the time period set forth in 37 CFR 1.55(a)(1) is considered to have been waived. If a claim for foreign priority is presented after the time period set forth in 37 CFR 1.55(a)(1), the claim may be accepted if the claim properly identifies the prior foreign application and is accompanied by a grantable petition to accept an unintentionally delayed claim for priority. See 37 CFR 1.55(c).
2. Objections to claims 1-3 are withdrawn due to corrected informalities mentioned in the Office Action dated 5/26/2005.
3. Objections to the abstract is not withdrawn, as the appended Abstract has not been received in the office.

### ***Drawings***

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the root portion and the head portion described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (US 6382307 B1) in view of Lee (US 6619381 B1).

Art Unit: 2835

With respect to claim 1, Wang et al. teaches (fig. 2,3) a heat dissipating arrangement for a portable computer, comprising at least two heat dissipating members adapted for installing into said portable computer for dissipating heat therefrom, wherein each of said heat dissipating members (2) comprises: a plate body defining a heat dissipating surface and a peripheral edge, at least a heat guiding channel (3,4) integrally protruded from said heat dissipating surface of said plate body; and at least an engaging arm bendably extended from said peripheral edge of said plate body, wherein said engaging arm has a narrowed root portion bendably and outwardly extended from said peripheral edge of said plate body and an engaging head portion extending from said root portion, wherein said engaging arm of each of said heat dissipating member (2) is bent downwardly that said engaging head portion of said engaging arm of said heat dissipating member (2) is substantially engaged with said root portion of said engaging arm of another said heat dissipating member (2) in such a manner that said heat dissipating members (2) are communicatively mounted side by side while said heat dissipating surfaces of said heat dissipating members (2) are spaced apart between said heat guiding channel (3,4) for dissipating said heat from said portable computer.

Wang et al. does not teach engaging arms having a narrowed root portion outwardly extended from said plate body and an engaging head portion extending from said root portion, wherein said engaging arm of each of said heat dissipating members is adapted to fold downwardly.

Lee teaches (Fig. 2) engaging arms (13,14) having a narrowed root portion outwardly extended from a plate body (10) of a heat dissipating member and an engaging head portion (130,140), extending from said root portion, wherein said engaging arms (13,14) are adapted to fold downwardly, in order to engage the root portion of an arm of another heat dissipating member. (See Fig. 1)

It would have been obvious to a person of ordinary skill in the cooling art at the time the invention was made to utilize the foldable engaging arms as taught by Lee with the invention of Wang et al, in order to improve the connection between adjacent fins (Column 1, Lines 56-67 of Lee).

With respect to claim 2, Lee teaches (fig. 2) engaging arms (13,14), having a Y-shape, integrally extended from said peripheral edge of said plate body (10) in a bendable manner (see, col. 2, lines 56-57), wherein said engaging head portion (130,140) of each of said engaging arms (13,14) forms as two engaging wings adapted to engage with said root portion of another said engaging arms (13,14) so as to substantially mount said heat dissipating members with each other. It is noted that the wings being bent provides the ability to be bent.

With respect to Claim 3, Lee teaches (Fig. 2) two engaging wings are symmetrically identical, wherein each of said engaging arms (13,14) are bent 90 degrees (see, fig. 1) with respect to said plate body to engage said engaging wings of said engaging arms (13,14) to engage with said root portion of another said corresponding said engaging arm at said peripheral edge of said plate body (10) (col. 1, lines 64-67).

With respect to claims 4-6, Lee teaches a folding arm which is integrally and bendably extended from said peripheral edge of said plate body (10) and is arranged to downwardly fold to overlap on said folding arm of another said heat dissipating member to lock up said heat dissipating members so as to enhance a contacting area between said heat dissipating members for dissipating said heat from said portable computer (col. 1, lines 64-67).

With respect to claims 7-9, Lee teaches folding arms downwardly bent 90 degrees (see, fig. 1) to transversely extend from said heat dissipating surface of said plate body to overlap on said folding arm of another said heat dissipating member.

With respect to claims 10-13, Wang et al. teaches aid heat guiding channels (3,4) of said heat dissipating members (2) are aligned to form an elongated heat conducting conduit for communicatively guiding said heat throughout said heat dissipating surfaces of said plate bodies when said heat dissipating members are mounted with each other.

Wang lacks an engaging arm having a predetermined length.

Lee teaches (Fig. 2) engaging arms (13,14) having a narrowed root portion outwardly bendably extended from a plate body (10) of a heat dissipating member and an engaging head portion (130,140), extending from said root portion, wherein said engaging arms (13,14) are adapted to fold downwardly, in order to engage the root portion of an arm of another heat dissipating member (see fig. 1).

It would have been obvious to a person of ordinary skill in the cooling art at the time the invention was made to utilize the foldable engaging arms as taught by Lee with the invention of Wang et al, in order to improve the connection between adjacent fins (Column 1, Lines 56-67 of Lee).

### ***Response to Arguments***

6. In response to your arguments, the Office agrees that Wang et al. does not teach an engaging arm bendably extended from the plate body as claimed in the instant application. Lee teaches an engaging arm, as Lee was relied on to teach this limitation. As broadly claimed, Lee teaches an engaging arm bent and adapted to engage with a root portion of another engaging arm. As far as the limitation lock up, the two step action of the locking operation is not claimed.

In response to Applicant's argument that there is no suggestion to combine the references, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However,

Art Unit: 2835

there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In *re McLaughlin*, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In *re Bozek*, 163 USPQ (CCPA) 1969. Wang et al. and Lee can be combined, in order address the limitations of the instant application, because the each of the references teaches a means of attachment for a heat dissipating assembly. The attachment means of Lee can be substituted for Wang et al., in order to provide a more secure attachment means of a heat dissipating assembly by one of ordinary skill in the art, without regard to information obtained from the instant application.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period



Art Unit: 2835

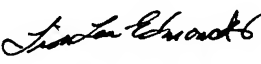
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571)272-8392. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571)272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IDW

  
**LISA LEA-EDMONDS**  
**PRIMARY EXAMINER**